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It was shown as main feature the soft and the flexible texture, made from leather hide or from the grounded scraps, it can get many shapes and measures in order to adapt to the kind of the animal that will chew it. Data supplied from the esp@cenet database - Worldwide

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**WO 01/33972 A1**

(54) Title: **MANUFACTURING PROCESS FOR PRODUCTS FOR ANIMAL CONSUMPTION**

(57) Abstract: It was shown as main feature the soft and the flexible texture, made from leather hide or from the grounded scraps, it can get many shapes and measures in order to adapt to the kind of the animal that will chew it.

## MANUFACTURING PROCESS FOR PRODUCTS FOR ANIMAL CONSUMPTION

### INTRODUCTION

The following Invention Patent descriptive relatory mentions the bones, rolls, munchies, powder and other products for animal consupcion manufacture process, which has as principal characteristic the soft and elastic consistency, it is made from hide and it can get a lot of shapes and measures, the munchies are got from the powder, that is the hide grounded, and it can get loads of shapes, such as geometrics ones, fruits, bones, thus to adapt to the right kind of animal

The bones, rolls, munchies, powder and other products for animal consupcion manufacture process has some steps to be followed, starting from the chemical process, to obtain a white hide, before it goes to the driers, it has to be manufactured to get the required shapes, when the product is dried it is soft at the same time that it is resistant, higenic and last longer, the strips that were dried goes to the grounded machine.

### TECHNICAL STATUS

The bones, rolls and other products for animal consupcion deccribed within this patent are products made of rawhide and got from a serie of steps. Those products has the following characteristics:

- They are products that can copy or not the classical bone shape, after they are dried they get some resitancy, such as mecanical, burn and cut resistant (tought).
- The bones and other products made from rawhide are hard, but they can get oft with the animal saliva prolonged contact.

- As they are made from rawhide, they are digestable and they can waste away as the time.

Those Rawhide bones with soft finishing and other rawhide products are important for animals, mainly for dogs, because:

- They provide exercise to the animal, helping the maxilar muscles, giving up the stress caused for over weight and the exercise less. Dogs and other domestics animals are out of their habitat, what can cause a bit of restlessness, even the dogs that are "homeless" can get restlessness.
- To chew is really important to keep the teeth clean, because it removes tartar build up and keep the breath healthy.
- It's excellent for animals to spend their time.

The products usually sold are hard and inflexible; no other kind of rawhide products for animal consumption is known that is soft and digestable at the same time. The products made of latex or other polímero are not digestable and they purpose just amusement.

#### SUGGESTED DEVELOPMENT

The discussion around the flexible and digestable bone, roll and other product for animal consumption solve with this manufacture process, shown and got from technical resources and determinate in this relatory, the manufacture process has the follow characteristics:

- It makes the rawhide to get a shape. It can imitate the classical bone shape, a tube that is called roll and many other shapes, all of that are resistant, but flexible, so it's got soft texture;
- It's made from leather hide and it's higenic and digestable.

The manufacture process depends on the tanneries basic treatments procedures, it has to behave special treatments steps to make the rawhide products production possible, sucessfull and with the texture already descripted.

#### PROCESS DESCRIPTION

The propossed patent characteristics is made trough the manufacture process description step by step, it should be made for easily undertanding, allowing invention full understanding.

From the process description, that shows the best way to make the idealized product, it is based on decsriptive relatory part, in maner to determinate the revindicate protection.

#### ALLEGATIONS

The propossed manufacture process is established from a serie of steps, mentioned next, and from the hides treated in drums.

To produce the bones, rolls and others the following steps are needed:

1. The rawhide is desgreaed and descalsinate adding 2% of amonia sulfate and 0,5% of biodegradable detergent (neuter);
2. Then add 100% of water in accordance the rawhide weight;
3. Then the got leather from the previous process is put inside the drum for 30 minutes around 3-4 RPM;
4. The ph control has to be within 9 to 10;
5. The leather washing continues for about 1 hour with running water;
6. The add 40% of water in accordance the rawhide wieght;
7. Later add 5% of Hydrogen peroxide at 50% concentrate (it has the option to place 0,2% of Sodium silicate);

8. Add 0,3% of Cloridric Acid at 40% for 1 hour;
9. It's possible to add conservant;
10. Add Bicarbonate 0,2% - 0,4% untill the ph gets 7-8, to neutralize ( It's processed in the drum for 30 minutes);
11. Then add from 20% to 50% of glicol propilen or edible white glicerine ( it's processed in the drum for 1 hour), then it's taken the drum off and let it for 4 - 5 hours at least;
12. Later the rawhide is cut in strip in accordance to its measures (from this step it's possible to make a large amount of different shapes products), then the classical shape bones with one knot in each point (knotted bone), or the rolls (tube shape) or the pretzel, or the donut, or the braided donut and sticks, or the other any shapes that is possible to make are produced.
13. When the rawhide strips get a shape , it is taken to the ovens at 40°C to 60°C for about 4 to 5 days and from 10 to 13% of humidity, the same happen to the scrap from the cutting process.

To produce the powder and the munchy products the steps are the following:

1. It follows from 1 to 11 the previous steps;
2. After the mentioned process and the manufactured products and scraps, the scraps are grounded to obtain the soft powder.
3. In a compound machine (mixer) 100 parts of soft flour is added to 10-20% of gelatine, or animal glue, or starch, or mandioc flour and food colorance, and several flavors, such as mint, vanilla, strawberry, peanut, chicken, beef, chesse, etc.

4. All those components are mixed for 30 minutes, later the mix is taken to a extruded machine.
5. On this step, when the mix is in the extruded machine, the shapes are choosen, it can be molded with stainless still, wood, plastic or other compatible material.
6. Than when the shapes are ready, it is taken to the ovens for 24 hours, at 40°C initial and 60°C final temperature.

**CLAIM:**

1 -The proposed bones, rolls, powder and munchies manufacture process is established from a serie of steps, mentioned next, and from the hides treated in drums.

To produce the bones, rolls and others the following steps are needed:

1. The rawhide is desgreased and descalsinate adding 2% of amonia sulfate and 0,5% of biodegradable detergent (neuter);
2. Then add 100% of water in accordance the rawhide weight;
3. Then the got leather from the previous process is put inside the drum for 30 minutes around 3-4 RPM;
4. The ph control has to be within 9 to 10;
5. The leather washing continues for about 1 hour with running water;
6. The add 40% of water in accordance the rawhide wieght;
7. Later add 5% of Hydrogen peroxide at 50% concentrate (it has the option to place 0,2% of Sodium silicate);
8. Add 0,3% of Cloridric Acid at 40% for 1 hour;
9. It's possible to add conservant;
10. Add Bicarbonate 0,2% - 0,4% untill the ph gets 7-8, to neutralize ( It's processed in the drum for 30 minutes);
11. Then add from 20% to 50% of glicol propilen or edible white glicerine ( it's processed in the drum for 1 hour), then it's taken the drum off and let it for 4 - 5 hours at least;
12. Later the rawhide is cut in strip in accordance to its measures (from this step it's possible to make a large amount of different shapes products), then the classical shape bones with one knot in each point (knotted bone),



or the rolls (tube shape) or the pretzel, or the donut, or the braided donut and sticks, or the other any shapes that is possible to make are produced.

13. When the rawhide strips get a shape , it is taken to the ovens at 40°C to 60°C for about 4 to 5 days and from 10 to 13% of humidity, the same happen to be scrap from the cutting process.

2 -The proposed bones, rolls, powder and munchies manufacture process is established from a serie of steps, mentioned next, and from the hides treated in drums, the powder and the munchies follow the steps 1 to 11 already mentioned and some others to be caracterized next:

1. After the mentioned process and the manufactured products and scraps, the scraps are grounded to obtain the *soft* powder.
2. In a compound machine (mixer) 100 parts of soft flour is added to 10-20% of gelatine, or animal glue, or starch, or mandioc flour and food colorance, and several flavors, such as mint, vanilla, strawberry, peanut, chicken, beef, chesse, etc.
3. All those components are mixed for 30 minutes, later the mix is taken to a extruded machine.
4. On this step, when the mix is in the extruded machine, the shapes are choosen, it can be molded with stainless still, wood, plastic or other compatible material.
5. Than when the shapes are ready, it is taken to the ovens for 24 hours, at 40°C initial and 60°C final temperature.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/BR 00/00121

## CLASSIFICATION OF SUBJECT MATTER

IPC<sup>7</sup>: A 23 K 1/18

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC<sup>7</sup>: A 23 K 1/00, 1/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ, EPODOC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	GB 2332851 A (THE HARTZ MOUNTAIN CORP.) 7 July 1999 (07.07.99) page 4, line 13 - page 8, line 24, claims.	1
Y	GB 1201683 A (SUPERIOR PET PRODUCTS) 12 August 1970 (12.08.70) whole document.	1
Y	US 5635237 A (GREENBERG S. et.al.) 3 June 1997 (03.06.97) claims, examples, column 8, lines 8 - 18.	2
Y	DE 3918631 A1 (MERKERT J.) 13 December 1990 (13.12.90) whole document.	2

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

„A“ document defining the general state of the art which is not considered to be of particular relevance

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„Y“ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

„&“ document member of the same patent family

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Patent document cited in search report			Publication date	Patent family member(s)			Publication date
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